

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed June 27, 2005 ("Office Action"). At the time of the Office Action, Claims 1-20 were pending in the application. In the Office Action, the Examiner rejects Claims 1-20. To advance prosecution of this case, Applicants amend Claims 1, 2, 6, 11 and 16. Applicants do not admit that any amendments are necessary due to any prior art or any of the Examiner's rejections. Applicants respectfully request reconsideration and allowance of all pending claims.

Claim Rejections - 35 U.S.C. § 112

The Examiner rejects Claims 2-20 as failing to comply with the written description requirement. Applicants respectfully request reconsideration and allowance of Claims 2-20.

Amended Claim 2 satisfies the requirements of 35 U.S.C. § 112. The subject matter claimed in amended Claim 2 is described in the specification in such a way as to reasonably convey to one skilled in the relevant art that Applicants, at the time the application was filed, had possession of the claimed invention. Amended Claim 2 recites, in part, "the event information is associated with one or more events passed to a thread and with the state associated with the task." This element of amended Claim 2 is amply supported by numerous parts of the specification. For example, paragraphs 79-80 of the specification recite in part:

[0079]....An event field within PTE messages 1501 contains event information. Based on that event information and Previous State 1510, the message interpreter determines the actions to be performed by using a look-up table. The actions are stored in storage device 1540. State Changer 1580 may change the Previous State 1510 of the PTE or maintain the current state.

...

[0080] One or more FSM 1500's are implemented in a PTE cooperative task. In one embodiment, when a message is delivered to a thread, that thread may call FSM 1500 and passing to it the event received with the message. Any FSM state variables may be stored in the cooperative task's shared memory.

These paragraphs, and other paragraphs in the specification taken in context, provide ample support for amended Claim 2. Accordingly, amended Claim 2 satisfies the requirements of 35 U.S.C. § 112. For at least these reasons, Applicants respectfully request reconsideration and allowance of amended Claim 2.

In rejecting amended Claims 6, 11, and 16, the Examiner employs the same rationale used to reject Claim 2. Accordingly, for at least the reasons stated with respect to amended Claim 2, Applicants respectfully request reconsideration and allowance of amended Claims 6, 11, and 16.

The Examiner's rejection under 35 U.S.C. § 112 of dependent Claims 3-5, 7-10, 12-15, and 17-20 is based upon elements of amended Claims 2, 6, 11, and 16, shown above to be allowable. For at least this reason, Applicants respectfully request reconsideration and allowance of Claims 3-5, 7-10, 12-15, and 17-20.

Claim Rejections - 35 U.S.C. § 103

Claims 1-3

The Examiner rejects Claims 1-3 as being unpatentable over U.S. Patent No. 6,430,593 B1 issued to Lindsley (hereafter "*Lindsley*") in view of Pai et al., "Flash: An Efficient and Portable Web Server" (hereafter "*Pai*"), and further in view of Cohen et al. "Win32 Multithreaded Programming" (hereafter "*Cohen*"). Applicants respectfully request reconsideration and allowance of Claims 1-3.

The cited references fail to support the rejection for at least two reasons. First, the references fail to teach, suggest, or disclose that "a plurality of threads send PTE messages to each other while cooperatively completing a task" as recited, in part, in amended Claim 1. Second, the references fail to teach, suggest, or disclose a plurality of threads "configured to send event information associated with the task in PTE messages to the finite state machine" as recited, in part, in amended Claim 1.

First, the references fail to teach, suggest, or disclose that "a plurality of threads send PTE messages to each other while cooperatively completing a task" as recited, in part, in amended Claim 1. The Examiner relies on *Pai* for this aspect of amended Claim 1. *Pai* discloses a Web server that uses independent threads. (*Pai*; § 3.2, ¶¶ 1-2). In *Pai*, however, the independent threads do not send messages, but rather "share global variables." (*Pai*; § 3.2, ¶ 2). A global variable in *Pai* is a "single shared address space," and to access the address space, the threads must use "synchronization to control access to the shared data." (*Pai*; § 3.2, ¶ 2). Thus, *Pai* teaches sharing data by means of a shared address space. In contrast, amended Claim 1 recites that "a plurality of threads send PTE messages to each

other.” Accessing an address space, as disclosed in *Pai*, does not equate to sending “PTE messages” as recited, in part, in amended Claim 1. There is nothing in the references that teaches, suggests, or discloses that “a plurality of threads send PTE messages to each other while cooperatively completing a task” as recited, in part, in amended Claim 1. Accordingly, the references fail to support the rejection.

Second, the references do not teach, suggest, or disclose a plurality of threads “configured to send event information associated with the task in PTE messages to the finite state machine” as recited, in part, in amended Claim 1. The Examiner relies on *Lindsley* for a finite state machine and on *Pai* and *Cohen* for the use of independent threads. As explained above, the threads in *Pai* are configured to access a shared address space. (*Pai*; § 3.2, ¶ 2). There is nothing in the references that teaches, suggests, or discloses threads “configured to send event information associated with the task in PTE messages” as recited, in part, in amended Claim 1. (Emphases added). Because the references fail to teach, suggest, or disclose this aspect of amended Claim 1, the references do not support the rejection. For at least these reasons, Applicants respectfully request reconsideration and allowance of amended Claim 1.

Claims 2-3 depend from amended Claim 1, shown above to be allowable. In addition, Claims 2-3 recite further elements not taught, suggested, or disclosed by amended Claim 1. For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 2-3.

Claims 4-20

The Examiner rejects Claims 4-20 as being unpatentable over U.S. Patent No. 6,430,593 B1 issued to Lindsley (hereafter “*Lindsley*”) in view of *Pai* et al., “Flash: An Efficient and Portable Web Server” (hereafter “*Pai*”), in view of Cohen et al. “Win32 Multithreaded Programming” (hereafter “*Cohen*”), and further in view of U.S. Patent No. 5,727,214 issued to Allen (hereafter “*Allen*”). Applicants respectfully request reconsideration and allowance of Claims 4-20.

The cited references fail to support the rejection for at least two reasons. First, the combination of *Lindsley* and *Allen* is improper because the proposed combination would render *Lindsley* unsatisfactory for its intended purpose. Second, the references fail to teach, suggest, or disclose receiving “PTE messages sent from a plurality of threads cooperatively completing a task in a portable thread environment” as recited, in part, in amended Claim 6.

First, the combination of *Lindsley* and *Allen* is improper because the proposed combination would render *Lindsley* unsatisfactory for its intended purpose. If a “proposed modification would render the prior invention being modified unsatisfactory for its intended purpose, then there is not suggestion or motivation to make the proposed modification.” MPEP § 2143.01. *Lindsley* discloses a system that processes a plurality of tasks by using a task scheduling accelerator. (*Lindsley*; col. 5, ll. 59-67; col. 6, ll. 1-4; Abstract). An intended purpose of *Lindsley* is to “compute schedule decisions in parallel with activity on the host processor.” (*Lindsley*; col. 5, ll. 59-67; col. 6, ll. 1-4; Abstract). In contrast, *Allen* discloses a matrix configured for processing an event as a single threaded object. The matrix in *Allen* is configured for handling “only one thread of execution at a time.” (*Allen*; col. 8, ll. 2-5; col. 12, ll. 7-11). Modifying *Lindsley* to map information to the matrix in *Allen* would require *Lindsley* to process events “one thread of execution at a time.” (*Allen*; col. 8, ll. 2-5). Such a modification would render *Lindsley* unsatisfactory for its intended purpose of “computing scheduling decisions *in parallel* with activity on the host processor.” (*Lindsley*; col. 5, ll. 59-67; col. 6, ll. 1-4) (emphasis added). Because the proposed modification would render *Lindsley* unsatisfactory for its intended purpose, the proposed combination is improper. Accordingly, Applicants respectfully request that the Examiner withdraw the proposed combination.

Even if the improper combination is not withdrawn, the cited references fail to teach, suggest, or disclose receiving “PTE messages sent from a plurality of threads cooperatively completing a task in a portable thread environment” as recited, in part, in amended Claim 6. The Examiner relies on *Pai* for this aspect of amended Claim 6. *Pai* discloses a Web server that uses independent threads. (*Pai*; § 3.2, ¶¶ 1-2). However, as explained above, the threads in *Pai* do not send messages, but rather retrieve shared data from a shared address space. (*Pai*; § 3.2, ¶ 2). Accessing a shared address space does not equate to receiving “PTE messages sent from a plurality of threads” as recited, in part, in amended Claim 6. (Emphasis added). There is nothing in the cited references that teaches, suggests, or discloses receiving “PTE messages sent from a plurality of threads cooperatively completing a task in a portable thread environment” as recited, in part, in amended Claim 6. Accordingly, the references fail to support the rejection. For at least these reasons, Applicants respectfully request reconsideration and allowance of amended Claim 6.

In rejecting amended Claims 11 and 16, the Examiner employs the same rationale used in rejecting amended Claim 6. Accordingly, for at least the reasons stated with respect to amended Claim 6, Applicants respectfully request reconsideration and allowance of amended Claims 11 and 16.

Claims 4-5, 7-10, 12-15, and 17-20 depend from claims shown above to be allowable. In addition, claims 4-5, 7-10, 12-15, and 17-20 recite further elements not taught, suggested, or disclosed by the cited references. For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 4-5, 7-10, 12-15, and 17-20.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Samir A. Bhavsar, Attorney for Applicants, at the Examiner's convenience at (214) 953-6581.

Although no fees are believed due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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